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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/769,255

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Michael Long

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EXAMINER

THOMPSON, TIMOTHY J

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/769,255

Applicant(s)

LONG, MICHAEL

Examiner

Timothy J Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 14, 15 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 4 and 6-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Leung et al.(U.S. Patent No. No. 6,775,043).

Regarding claim 1, Leung et al. discloses tip-tilt platform having a first and second axes(fig 2) and having a light direction member(fig 3, 34) coupled thereto, first and second current coils(fig 3, 46, 48) coupled to said platform; and a plurality of pole stand assemblies(fig 3, 50a, 50b) coupled to said first and second current coils and including a plurality of magnets(fig 3, 52a, 52b), wherein said magnets are configured to selectively tilt said tip-tilt platform with respect to first and second axes in response to first and second currents flowing through said first and second current coils(col 9, line 44 through col 10, line 12).

Regarding claim 2, Leung et al. discloses first and second current coils are concentrically coupled to said tip-tilt platform(fig 2 and 3).

Regarding claim 3, Leung et al. discloses light direction member comprises a reflecting light direction member(fig 3, 34).

Regarding claim 5, Leung et al. discloses a base member(fig 3, 32) wherein said

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post stand assemblies(fig 3, 54 a, 54b) are coupled to said base and said tip-tilt platform is configured to move with respect to said base(fig 3).

Claim 21, 22, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bernstein(U.S. Patent No. 6,388,789).

Regarding claim 21, Bernstein discloses controlling a first current in a first current coil to control rotation of said tip-tilt platform about a first axis; and controlling a second current in a second current coil to control rotation of said tip-tilt platform about a second axis wherein said second axis is disposed at an angle with respect to said first axis(col 11, line 40 to col 12, line 34).

Regarding claim 22, Bernstein discloses applying a first current to a first current coil to cause rotation of said tip-tilt platform in a first direction about said first axis and reversing a direction of said first current to cause said tip-tilt platform to rotate in a second direction which is opposite of said first direction, and wherein controlling said second current comprises applying said second current to a second current coil to cause rotation of said tip-tilt platform in a third direction about a second axis; and reversing a direction of said second current to cause said tip-tilt platform to rotate in a fourth direction which is opposite of said third direction(col 11, line 40 to col 12, line 34).

Regarding claim 25, Bernstein discloses applying a biasing force to said tip-tilt platform to return said tip-tilt platform to a biased position(fig 3c, 104, 105).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leung et al.(U.S. Patent No. No. 6,775,043) as applied to claim 1 above, an further in view of Bernstein(U.S. Patent No. 6,388,789).

Regarding claims 14, 15, Leung et al. does not disclose a spring assembly configured to urge said tip-tilt platform toward a biased position. However, Bernstein discloses a spring assembly configured to urge said tip-tilt platform toward a biased position(fig 3c, 104, 105). It would have been obvious to one having ordinary skill in the art at the time the invention was made to disclose a spring assembly configured to urge said tip-tilt platform toward a biased position as shown by Bernstein, with the light direction member of Leung et al., since as shown by Bernstein, spring assemblies are commonly used to urge said tip-tilt platform toward a biased position.

Claims 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernstein(U.S. Patent No. 6,388,789) as applied to claim 21 above.

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Regarding claim 23, Bernstein does not disclose the currents are applied and reversed at a rate of at least 30 hertz. It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the current at a rate of at least 30 hertz, since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claim 24, Bernstein does not disclose the rotation steps occur at an interval less than a flicker rate of a human eye. It would have been obvious to one having ordinary skill in the art at the time the invention was made to rotate at an interval less than a flicker rate of a human eye, since it has been held that where general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernstein(U.S. Patent No. 6,388,789) in view of Kurematsu(U.S. Patent No. 6,808,271).

Regarding claim 26, Bernstein discloses, a means for controlling a first current to control rotation of said light direction member about a first axis; and a means for controlling a second current to control rotation of said light direction member about a second axis(col 11, line 40 to col 12, line 34). Bernstein does not disclose a means for providing light to a light direction member. However, Kurematsu discloses a means for providing light(fig 1, 9) to a light direction member(fig 1, 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to disclose a

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means for providing light to a light direction member as shown by Kurematsu, with the light direction member of Bernstein, since as shown by Kurematsu, lights are commonly coupled with light direction members so as to create an original image.

Regarding claim 27, Bernstein discloses means for restoring said light direction member to an unbiased position(fig 3c, 104, 105).

Regarding claim 28, Bernstein discloses means for controlling the rotation of said light direction means about said first and second axes(col 11, line 40 to col 12, line 34).

Allowable Subject Matter

Claims 4, 6-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With the allowable features being the pole stand assembly includes an inner and an outer pole stand.

Claims 16-20 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art taken either singularity or in combination fails to anticipate or fairly suggest the limitations of the independent claim, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed

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features as presented in independent claim 16, with the allowable feature being each pole stand assembly includes an inner and an outer pole stand. Therefore claims 16-20 are allowed.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Thompson whose telephone number is (571) 272-2342. If the examiner can not be reached his supervisor, Georgia Epps, can be reached on (571) 272-2328.

T.J.T.

12/21/04


TIMOTHY THOMPSON
PRIMARY EXAMINER